

# Claims

[c1] What is claimed is:

1. A method for transmitting data in a multi-chip system, the multi-chip system comprising at least a host chip and at least a slave chip, the method comprising the following steps:

(a) the slave chip informing the host chip of data needed to be transmitted;

(b) when being informed by the slave chip, the host chip informing the slave chip to start to transmit the data; and

(c) when being informed by the host chip, the slave chip starting to transmit the data to the host chip.

[c2] 2. The method of claim 1 wherein in step (b) the host chip further delivers a clock signal to the slave chip.

[c3] 3. The method of claim 1 wherein in step (a) the slave chip actively alters a voltage on a request pin pair, electrically connected between the host chip and the slave chip, to inform the host chip of the data needed to be transmitted.

[c4] 4. The method of claim 1 wherein in step (a) the slave

chip detects states of a plurality of signals, when any changes of the states of the plurality of the signals are detected, the slave chip actively alters a voltage on a request pin pair to inform the host chip of the data needed to be transmitted, wherein the request pin pair is electrically connected between the host chip and the slave chip.

- [c5] 5.The method of claim 1 wherein in step (b) the host chip detects a voltage on a request pin pair, when the host chip detects that the voltage on the request pin pair has changed, the host chip delivers a clock signal to the slave chip via a clock pin pair, wherein the request pin pair and the clock pin pair are both electrically connected between the host chip and the slave chip.
- [c6] 6.The method of claim 1 wherein in step (b) the host chip alters a voltage on a latch pin pair for informing the slave chip to start transmitting the data, wherein the latch pin pair is electrically connected between the host chip and the slave chip.
- [c7] 7.The method of claim 1 wherein in step (c) the slave chip transmits the data to the host chip via a data pin pair on a basis of a clock signal of a clock pin pair, wherein the data pin pair and the clock pin pair are both electrically connected between the host chip and the

slave chip.

- [c8] 8.The method of claim 1 wherein in step (c) the slave chip transmits states of a plurality of signals to the host chip via a data pin pair on a basis of a clock signal of a clock pin pair, wherein the data pin pair and the clock pin pair are both electrically connected between the host chip and the slave chip.
- [c9] 9.The method of claim 1 wherein the method further comprises the following step:
  - (d) the host chip receiving data from the slave chip and decoding the data.